National Institute of Environmental Health Sciences

Global spread and persistence of dengue

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Abstract:

Dengue is a spectrum of disease caused by four serotypes of the most prevalent arthropod-borne virus affecting humans today, and its incidence has increased dramatically in the past 50 years. Due in part to population growth and uncontrolled urbanization in tropical and subtropical countries, breeding sites for the mosquitoes that transmit dengue virus have proliferated, and successful vector control has proven problematic. Dengue viruses have evolved rapidly as they have spread worldwide, and genotypes associated with increased virulence have expanded from South and Southeast Asia into the Pacific and the Americas. This review explores the human, mosquito, and viral factors that contribute to the global spread and persistence of dengue, as well as the interaction between the three spheres, in the context of ecological and climate changes. What is known, as well as gaps in knowledge, is emphasized in light of future prospects for control and prevention of this pandemic disease.

Source: http://dx.doi.org/10.1146/annurev.micro.62.081307.163005

Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Ecosystem Changes

Geographic Feature:

resource focuses on specific type of geography

None or Unspecified

Geographic Location:

resource focuses on specific location

Global or Unspecified

Health Impact:

specification of health effect or disease related to climate change exposure

Infectious Disease

Infectious Disease: Vectorborne Disease

Vectorborne Disease: Mosquito-borne Disease

Mosquito-borne Disease: Dengue

Intervention: ☑

strategy to prepare for or reduce the impact of climate change on health

A focus of content

Mitigation/Adaptation: ☑

mitigation or adaptation strategy is a focus of resource

Adaptation

Resource Type: ☑

format or standard characteristic of resource

Review

Timescale: ☑

time period studied

Time Scale Unspecified